Dissertation

The development of *used to*

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Abstract

This dissertation attempts to analyze the development of *used to* through four historical corpora (the Penn-Helsinki Parsed Corpus of Middle English 2; the Penn-Helsinki Parsed Corpus of Early Modern English; A Representative Corpus of Historical English Registers; and the Corpus of Late Modern English Texts, Extended Version). This study first focuses on the frequency of words in order to find any significant increase in the trend of *used to*. The frequency of *used to* with inanimate subjects and stative verbs is also searched for so as to provide evidence for grammaticalization, which other studies of semi-modal have shown. The aspects of *used to* in negation and with personal subjects are also analyzed. However, because the results reveal that *used to* is a low frequency semi-modal, qualitative discussion about its grammaticalization is in need. In addition, the inconsistent system of negative forms of *used to* is discussed as well

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Chapter 1 Introduction

Verbs in English can be divided into two categories: auxiliary verbs, and lexical verbs. The reason to separate verbs into two groups is that the properties of auxiliary and lexical verbs are different. In general, auxiliary verbs have the properties that they are inverted with the subject in interrogative clauses (1), they have a different negative construction (2), and they lack of inflectional forms (3).

(1) Can she go to school?

(2) She cannot eat any cake because of cavity.

(3) I/he will go to Japan next week.

With respect to the special properties, the studies of the history of English auxiliary verbs in recent decades have paid attention to those special properties. Lightfoot[1] (1979: 98-115) states that the auxiliary verbs originated from the change of grammar, and this kind of change derived from the imperfect acquisition of grammar by children. The grammatical change is separated into two stages: "apparent isolated changes" and reanalysis of the changed verbs as a new category. Five apparent isolated changes are presented for the pre-modals becoming the modern modals. First, pre-modals no longer took direct objects. Their forms as preterite-present were still retained, unlike other verbs. Third, the tense and mood in pre-modals became unclear. Fourth, the marking of epistemic pre-modals became unique. Fifth, the lexical verbs, in the same period of the change of pre-modals, ceased taking bare infinitives. These five apparent isolated changes made pre-modals identical and they could be considered a new category.

In the second stage, this new category of pre-modals further developed into the

[1] Of course, there are some disagreements with Lightfoot's statement, but this is not the field that I am going to discuss.

modern modals through the following changes. Pre-modals did not take infinitival constructions nor *-ing* affixes. The placement of negation was preferably after the pre-modals rather than finite verbs. In addition, the subject-verb inversion only occurred with pre-modals. With the development of these properties, the pre-modals could be considered as a separate category from English lexical verbs. Interestingly, the change from pre-modals to modals also caused the appearance of a second subcategory of verbs. This new subcategory is called the quasi-modals, or semi-modals, for example, have to or ought to. Their appearance is said to fill the gap that modals left when they were formed (Lightfoot 1979: 112, Fischer 2003:18-19).

Although Lightfoot has an explanation for the derivation of semi-modals, there are some statements contradicting its plausibility. First of all, Plank (1984: 322) argues that the origin of semi-modals is not as simple as Lightfoot explains, since the usage of semi-modals was not employed in nonfinite forms or with past time reference. Biber et al. (1999: 487) also lists the approximate time of the origin of semi-modals. For instance, *used to*, *ought to*, and *need to* were attested earlier than fifteenth century; *have to* was attested between fifteenth and seventeenth centuries.

Another explanation for the formation of modals and semi-modals is grammaticalization. Hoper and Traugott (2003: 55-58) point out that the present day usage of modals was recategorized from the variation on the past status of lexical verbs. In the Old English period, all the verbs had similar behavior in terms of negation, but some of them, the precursors of modern modals, had different morphology. For example, *nille* was the combination of *ne* and *wille*. In the Middle English period, the appearance of a new negator, *not*, was post-verbal. In addition, the past tense form of pre-modals was used to express the meaning of present tense. Later, the appearance of *do* in interrogative and negative sentences made most verbs not move forwards, the present-day usage of lexical verbs. However, the category of

pre-modals, in the same periods, did not behave like what most verbs did; instead, they were reanalyzed as a group that does not need *do* support. Hoper and Traugott (2003) does not discuss the time of the appearance of the semi-modals.

With this in mind, most research on semi-modals is based on grammaticalization. The most popular discussion of semi-modals is *have to* (Brinton, 1991; Fischer et al, 2000; Krug, 2000; Tagliamonte, 2004; Close and Aarts, 2008), followed by *be able to* and *be going to*, which to some extent can be interchanged with the modals, can and will, respectively. This means that the application of grammaticalization to the development of semi-modals is mainly focused on some specific semi-modals. Or alternatively, if various topics about semi-modals are researched, few of them are marginal auxiliaries[2], such as *used to*. This paper is going to discuss the semi-modal *used to* and its development.

The semi-modal *used to* can be treated as either a verb belonging to the auxiliaries or the lexical verbs (Biber et al. 1999: 73, Collins 2009: 14). For many speakers, there is no obvious division between the usages of *used to* as a lexical verb or a semi-modal verb, especially when it comes to the usage of negation or inversion. For instance, (4a) and (4b) may be unacceptable for some native speakers, but similarly, some speakers may consider these two sentences acceptable.

(4) a. They usedn't to eat meat

b. Used they to eat meat? (Collins 2009: 14)

Hence, something must have happened during the development of *used to*. If *used to* is assumed to undergo the process of grammaticalization as did the other semi-modals, then there should be evidence. In order to answer the question whether *used to* is grammaticalized, the historical development of *used to* should be investigated. This paper will use historical corpora to examine the frequency of *used to*, because the

[2] The marginal auxiliary is defined by Biber et al (1999: 73).

increase in frequency is thought to be correlated with grammaticalization (Mair, 2004, 125).

The contents of this dissertation are organized into four chapters. Chapter two is about the past studies related to grammaticalization and *used to*. In chapter three, methodology and the backgrounds of corpora will be presented. Chapter four details the quantitative result and analysis for *used to*, followed by chapter five with qualitative discussion.

Chapter 2 Literature Review

There are two main areas of the literature to review: the concept of grammaticalization and the previous discussion about the semi-modal *used to*. In the section on grammaticalization, the theory of grammaticalization will be briefly stated, and one of the semi-modals *have to* will be explained as an example. This is followed by Lehmann's parameters of grammaticalization. In the section of *used to*, it is discussed in terms of historical aspects and its contemporary usage.

2.1 Grammaticalization

Grammaticalization is a process where some items become more grammatical and less lexical. Hopper and Traugott (2003: 7) presents the process of grammaticalization as a cline:

content item > grammatical word > clitic > inflectional affix

This process has diachronic and synchronic suggestions. The implication of the diachronic aspect is the path which items develop into over time. In terms of synchronic aspect, it is thought of as a line with two ends: one is the lexical terminal and the other is the grammatical terminal.

This cline provides a fundamental notion, and normally, the grammaticalization of modals and semi-modals is at the second or third stage of this cline. The well-known example of a grammaticalized semi-modal is *have to*. Brinton (1991) analyzes *have to* through historical aspect. In the Old English period, *have* is a full verb, meaning 'to possess'. It is not necessary to add infinitival *to*, but if it is added, the infinitive is the adjunct of the object indicating the purpose. Then, the meaning of possession becomes weakened, and it usually has the meaning of obligation. In the Middle English period, the intransitive infinitive appears, and there is a new word

order ‘have + infinitival to +NP’ rather than the order ‘have + NP +infinitival to’ in the Old English, although the new pattern is not completely fixed. Moreover, inanimate subjects occurring with *have* also occurs in the period, as in (5).

(5) *My cours, that hath so wyde for to turne*

‘*My course, which has so wide to turn*’ (Chaucer, CT.Kn. A2454; cited in Brinton 1991: 22)

In the Early Modern English period, the word order is completely fixed. On the contrary, the analysis of *have to* presented in Heine (1993) goes through five stages:

(6) a. I have a letter.

b. I have a letter to mail.

c. I have a letter to write.

d. I have to write a letter.

e. I have to write. (Heine 1993: 41f)

At stage (6a), the verb *have* means to possess. Stages (6b) and (6c) show that the infinitive is the adjunct of purpose, but the meaning of possession in stage (6c) is not so strong as that in stage (6b), since the letter is not written yet, implying that it is impossible for the speaker to possess it. Stage (6d) and (6e) reveal the way that semi-modal *have to* has evolved, where *have to* is reanalyzed as a possible unit at stage (6d), and a real semi-modal at stage (6e). Therefore, from either historical or synchronic aspect, *have to* is grammaticalized, and at the second stage of the cline.

Apart from the cline, grammaticalization can also be presented as Lehmann’s parameters (1995: 121-160):

	Paradigmatic	Syntagmatic
Weight	Integrity	Structural scope
Cohesion	Paradigmaticity	Bondedness
Variability	Paradigmatic variability	Syntagmatic variability

Table 1. Grammaticalization in Lehmann's parameters (Lehmann, 1995: 123)

In integrity, there are three aspects: the meaning of one item is bleached (desemanticization), the phonological substance in one item is lost (phonological attrition), and the inflection of one item is lost (morphological degeneration). Paradigmaticity is the change of word class from major category to minor one. Paradigmatic variability represents an item becoming restricted in specific contexts. Structural scope means that the level of grammatical structure is reduced. Bondedness means the loss of boundary in an item or the increase in integration of morphemes from two items. Syntagmatic variability is the fixation where the freedom of syntax in one item decreases. According to Lehmann (1995: 33-34), grammaticalization is an approach to gauge how grammatical a phenomenon is, and the phenomenon's syntactic relations. Thus, the parameters provide further details to examine the process of grammaticalization.

2.2 Previous studies in *used to*

There are two points discussed in the history of *used to*, its origin and development. According to Bybee et al. (1994: 155), the semi-modal *used to* originated from the verb *use*, which was borrowed from Old French, meaning "to follow a usage or custom." Around approximately the 13th century, the verb *use* was frequently employed with the infinitival *to*, indicating "be accustomed to doing". The subject of this construction was a human being, and both present and past tenses were allowed. Later, in the 15th century, the construction began to occur with non-human

subjects. Visser (1969-1973: 1410-1411) states that the derivation of the construction *used to* is due to the fact that the infinitive after the verb *use* had the property of pronounced nominal character, and its function is similar to a noun. For example,

(7) They *use bathing and stuping those places* (taken from Visser, 1967-1973: 1411)

This statement is inclined to support the idea that the infinitive form is substituted by the *–ing* form. Similar assumption is proposed by Nagle (1985: 164) that the construction of *used to* initiated as a main verb with a nominal. Later, the construction became unclear because of the reanalysis of infinitival *to*. This results in the fact that nouns and verbal nominals can be employed after *used to*, and the preposition *to* in the original phrase *used to* became one constituent of VP.

The construction of *used to*[3] was used with present tense form before the 18th century. During the 1700s to the 1900s, the construction of present tense form frequently combined with *do* support in order to emphasize speaker's speech as in (8), raise questions (9), and make a negative sentences (10).

(8) Euery day in veneration of them, we do vse to say solemn masses.

(9) Does the gentleman use to rail at women?

(10) I do not use to let my wife be acquainted with the secret affairs of my state. (Visser, 1969-1973: 1412-1413)

However, in present day English, all the usages of present tense disappeared. Visser (1967-1973) holds the idea that the disappearance of present tense usage of *used to* is due to the fact that it was substituted by *be used to, be accustomed to* and *be in the habit of*. Different from the opinion of Visser, Bybee et al (1994: 156) maintains that the disappearance may result from the less use of this construction in present tense.

[3] The present tense, of course, is written as *use to*, but for the sake of consistency, *used to* is written as a representative for all the other forms. If the real form needs to be clarified, it will be presented.

In the 17th and 18th century, *used to* was written in *use to* in some quotations, even though it was the usage of past tense. Two possible explanation are made by Visser. The first one is that the inconsistency of orthography may derive from the negligence of the writers, or the assumption that *used to* had undergone assimilation: /zdt/ > /ztt/ > /stt/ >/st/. This would cause writers write down *use to* based on its pronunciation. Hence, it is not easy to confirm whether *use to* is the alternate form of *used to* in past, or the present tense form of *use to*. Under the circumstances, the negation of *used to* can be written as *usedn't to* or *usen't to*, especially in tag questions (Visser 1969-1973: 1415).

There are two meanings of the construction *used to*: the habitual activity that the subject did as in (11), or the condition or state where the subject is as in (12):

(11) He used to shut the door every night.

(12) There used to be a book-case in this room. (Visser 1969-1973: 1413)

With regards to the habitual activity, Briton (1988: 140-142) categorizes it as a habitual aspectualizer, which is regarded as a continuative condition in different repeated situations. In other words, instance (11) can be said as 'he is in the habit of shutting the door every night'. Because of this, *used to* has long been discussed as a verb with habituality. In addition to that, the first meaning of *used to* later developed the additional notion that a subject usually did in the past, and he stopped doing the same activity later on (Visser 1969-1973: 1413). As for the second meaning, no information has been found.

Apart from the diachronic aspect of *used to*, the contemporary usage of *used to* is also discussed. In present day English, the meaning of *used* to and *would* are very close and frequently considered as a pair of synonyms (Palmer 1990: 155); therefore, there are some points being compared and contrasted. The point of view that *used to* and *would* are the same is that both of them are regarded as past habitual markers.

Accordingly, they can be interchangeable as the sentence demonstrated in Tagliamonte and Lawrence (2000: 332):

(13) and when we was on a night [shift], she used to/would be so terrified.

On the other hand, the most outstanding difference between *used to* and *would* is that *used to* lacks the present tense form, whereas *would* has *will* as a corresponding form in present tense (Tagliamonte and Lawrence, 2000: 327; Hantson, 2005: 254). In additon, although there is an overlapping area of the meaning in terms of actions, both *used to* and *would* have their additional denotations: past states and activities, respectively. This is shown in (14), (15), and (16).

(14) In 1914, I would walk to school.

(15) In 1914, I used to walk to school.

(16) *I would live in York. (Tagliamonte and Lawrence, 2000: 331)

In (8), *would* cannot be used, whereas *used to* is acceptable, because *would* does not have the denotation of state. Moreover, a time indicator is commonly considered as a requirement to *would*, especially when *would* denotes an action which is conducted iteratively; nonetheless, *used to* does not have this property (Tagliamonte and Lawrence, 2000: 331). With reference to the semantic differences, *used to* seems to be more object while *would* is more likely to be the interest of a person, thus making each of them have its own preference type of subject. In other words, first person subject correlates with *used to*, and third person subject associates with *would* (Palmer 1990: 155, Tagliamonte and Lawrence 2000: 336). Although Nagle (1988: 162) and Bybee et al. (1994: 156) points out that the usage of *used to* expanded from nonstative verbs to stative verbs, Tagliamonte and Lawrence (2000: 339) maintains that *used to* is usually constrained to the use of nonstative verb based on the results from their study, whereas *would* is not. Finally, the temporal adverbial collocations in *used to* and *would* are different as well. For *used to*, a precise temporal adverb is not

necessary, because the notion of past occurrences is thought to be included in *used to*. The reason that *used to* has its own implied past occurrences is that it indicates the vague idea of the past. By contrast, *would* is often expressed with frequency adverbs (Tagliamonte and Lawrence, 2000: 340).

As mentioned above, *used to* has been discussed as a marker of past habituality. However, Binnick (2005; 2006) claims that *used to* is not a past habitual marker but a marker which is similar to "preterito-present modals" (2005: 348), such as *might* and *must*. The reason for this statement is that *used to* is the expression of present tense via conversation. That is, according to Binnick (2005; 2006), *used to* itself does not have any meaning of past habituality but is added by either speakers and hearers. Hantson (2005) also contends that the past habituality might be weakened or even cancelled, if the information of present day is provided. Sentence (17) is an instance.

(17) She used to swim every day, and she still does. (Binnick 2005: 35)

Hantson (2005: 266) further cites Denison's idea that the denial of the implicature of past habituality in *used to* with an adverb, such as formerly, lies more strongly in the adverb rather than in *used to*:

(18) Formerly, this famous painting used to be owned privately, but now it belongs to the nation. (Hantson 2005: 266)

This indicates that the meaning of past habituality in *used to*, to some extent, might be too weak to claim it as a marker of the habitual past tense.

The negation of *used to* was formed as *used not to* or *usedn't to* before the rise of dummy *do*. In the late 16th century, *used to* began to occur with *do* or *did*. The coexisting systems of negation makes *used to* either an operator as in *used not to* or a non-operator in *didn't use(d) to* (Denison, 1998: 175-176). However, even if *used not to* is considered as operator, or semi-modal, Palmer (1965: 162) takes the view that it is arguable as in (19)

(19) He used not to act like that. (Palmer 1965: 162)

He claims that *used to* can be regarded as a semi-modal or a full verb. Of course, from its form there is little doubt that it is a semi-modal, but if the sentence is examined carefully, it is possible to have two readings. One is whether it is the subject that is not in the habit of acting like that or the other where it is the subject that is in the habit of not acting like that.

Chapter 3 Methodology

This chapter introduces four corpora, which are used in this dissertation. They are the Penn-Helsinki Parsed Corpus of Middle English 2 (PPCME2); the Penn-Helsinki Parsed Corpus of Early Modern English (PPCEME); A Representative Corpus of Historical English Registers (ARCHER); and the Corpus of Late Modern English Texts, Extended Version (CLMETEV). This is followed by the description of each corpora's advantages and limitations. After that, the concordancing software WordSmith Tools 5.0 is introduced and the approach of using it to obtain the results is demonstrated at the end of this chapter.

3.1 PPCME2

PPCME2 contains the texts in the Middle English period (1150-1500). The texts are based on Helsinki Corpus of English, with some added or deleted. The time span of PPCME2 is separated into nine periods.

Period designation	Composition date	Manuscript date
MX1	Unknown	1150-1250
M1	1150-1250	1150-1250
M2	1250-1350	1250-1350
M23	1250-1350	1350-1420
M24	1250-1350	1420-1500
M3	1350-1420	1350-1420
M34	1350-1420	1420-1500
MX4	Unknown	1420-1500
M4	1420-1500	1420-1500

Table 1. Helsinki Periods (Retrieved from http://www.ling.upenn.edu/hist-corpora/PPCME2-RELEASE-3/index.html)

The size of this corpus is approximately 500,000 words to 1.2 million, and fifty-five texts are contained. Word counts in each period are, however, unbalanced:

Period	Word count
MX1	62,596
M1	195,494
M2	93,999
M23	17,013
M24	35,591,
M3	385,994
M34	99,994
MX4	5,168
M4	260,116
Total	1,155,965

Table 2. Word counts in Helsinki periods (Retrieved from http://www.ling.upenn.edu/hist-corpora/PPCME2-RELEASE-3/index.html)

3.2 PPCEME

Texts in PPCEME are from 1500 to 1710, and they are separated into three subperiods, the intervals of which are seventy years: 1500-1569, 1570-1639, and 1640-1710. PPCEME consists of three subcorpora: Helsinki, Penn 1, and Penn 2.The size of each subcorpora is over 550,000 words, and they are roughly balanced. The PPCEME totals over 1.7 million words, and the word counts for each period are above 500,000. In addition to word counts, the registers in PPCEME are tagged, although the genres are not so balanced[4].

[4] See appendix 1.

3.3 ARCHER

There are two varieties of English texts in ARCHER: British and American English texts. ARCHER separates time span into seven periods from 1650 to 1999, and the time span of each one is fifty years. British English texts are thoroughly comprised of seven different continuous time periods, but American English texts are only comprised of three discontinuous periods: 1750-1799, 1850-1899, and 1950-1999 (see Table 4). Word counts of the texts in each period are approximately 180,000 words, and the texts are categorized into eight genres: drama, fiction, sermons, journal or diaries, medicine, news, science, and letters. The totals are approximately 1.8 million words in the entire corpus, and two-thirds are British English texts, while American English texts constitute one-third (Retrieved from: http://www.llc.manchester.ac.uk/research/projects/archer/archer3_1/)

British	American
1. 1650-1699	
2. 1700-1749	
3. 1750-1799	3. 1750-1799
4. 1800-1849	
5. 1850-1899	5. 1850-1899
6. 1900-1949	
7. 1950-1999	7. 1950-1999

Table 4. The coverage of the time span and varieties of ARCHER

3.4 CLMETEV

CLMETEV covers from 1710 to 1920, and the time span is divided into three subperiods, each one a seventy-year intervals: 1710-1780, 1780-1850, and 1850-1920.

The texts of this corpus are purely written by British authors and the authors are all native-speakers. The maximum of text from each author in the corpus is 20,000 words. CLMETEV contains writers from both genders, and various genres. The total number of words is approximately 14 million, and each period constitutes at least 3 million:

Subperiod	Number of authors	Number of texts	Number of words
1710-1780	23	32	3,037,607
1780-1850	46	64	5,723,988
1850-1920	51	80	6,251,564
Total	120	176	14,970,622

Table 5. The number of authors, texts and word counts in CLMETEV. (Retrieved from https://perswww.kuleuven.be/~u0044428/clmetev.htm)

3.5 Advantages and limitations

The reason for using the four corpora is that their time spans covers the whole history of *used to*, from the Middle English period to present day English. The four corpora can be representative of each period since it is impossible to obtain any recording before the modern English period and the texts in the corpora are well-balanced.

An advantage of PPCME2 and PPCEME is that both of them have plain texts and tagged texts. The tagged texts facilitate the search for a specific lexical item and its part of speech. The plain texts also help researchers to search the plain texts for double check after the search of tagged texts.

Unlike the PPCME2 and PPCEME, the texts in ARCHER and CLMETEV are not tagged. However, the advantage of using ARCHER for this research is that the genres are clearly labeled. That is, the instances are clearly tagged with their registers, and the number of hits in different registers can be shown. Moreover, two varieties of

English are included. Nonetheless, the disadvantage of this corpus is that the time periods of the American English texts are not continuous, which means that two varieties of English in certain periods cannot be precisely compared.

Compared with ARCHER, the total number of words in CLMETEV is much more substantial, which suggests that more matched instances will be obtained. This fits De Smet's (2005: 78) statement that CLMETEV is appropriate for the study of infrequent syntactic features. In addition, he claims that no authors in this corpus are included into two periods. This means that the texts in CLMETEV are not controversially labeled in the periods of time. Nevertheless, the drawback of this corpus is that it is not ideal for the study of sociolinguistics and the study of orthographic variation. The reason is that although genres and registers in CLMETEV are said to be balanced, they are not shown with the total number of same genres. Furthermore, the texts comprised in CLMETEV are based on electronic publications (De Smet, 2005: 79).

Apart from the above disadvantages, the limitation that they all have is the deficiency of authentic conversation registers. The reason for conversation registers is that semi-modals are thought to be used more in conversations (Biber et al, 1999: 486). For this limitation, the following is a possible method to solve the lack of representation of conversation. Biber (1998: 252-253) points out that dialogs in drama, dialogs in fictions, and sermons can reflect conversations, since they are the materials that are similar to conversations. Krug (2000: 32-33) also contends that drama and dialogs in fictions, to some extent, are spoken-written materials, indicating that they are worth being regarded as the register of conversation. Hence, if the spoken and written languages are compared, the results of *used to* in dialogs will be considered as spoken-usage.

3.6 WordSmith Tools 5.0 and the search process

The concordancing software, WordSmith Tools 5.0, is a tool for searching the behavior of words in texts (Scott, 2010: 2). It helps in the study of corpus linguistics, especially when one lexical item is investigated. The system of concordancing in WordSmith Tools 5.0 displays the collocations of searched words clearly. Then, the results can be sorted, tagged, and deleted by a researcher so as to obtain results. Therefore, the following is the approach for the search of *used to*.

In the corpora of PPCME2 and PPCEME, the tagged texts were first to be investigated. First of all, *vse* is searched for so as to gain some initial hits. Then only *vse* as a verb was carefully examined for the purpose of understanding the way the texts are tagged. After that, 'vs*_VB* to_TO[5]' is searched for, and all the relevant verb phrases of *vsed to* were displayed. The other spellings of *use*, such as *uus* and *huse*[6] were also searched for in the two corpora.

With regards to the ARCHER and CLMETEV corpora, the investigation was much easier, because the spellings of *use* is nearly fixed in Early Modern English. 'us* to' and 'vs* to' are searched for. The plain texts in PPCME2 and PPCEME are conducted in the same way.

After the search of concord, the irrelevant instances of words, such as *us* and *usual* are deleted. Then, the passive form of the verb *use* with infinitival *to* is also excluded:

(20) This negligent kind of guesswork, for what other epithet can be used to

[5] In WordSmith, asterisk means disregarding the end of the word. In this case, *vsed* or *vseth* can be both found. The system that PPCME2 and PPCEME use is a word followed by an underline and tagged part of speech. For example, VB means a verb, and TO represents the infinitival *to*.

[6] For further information of the different spellings of *use*, see the *OED* (Retrieved from http://www.oed.com/view/Entry/220636?rskey=L7RgiK&result=2&isAdvanced=false#eid).

point out the random exertions…. (1881, Frankenstein)

The remaining instances of the concordance are *used to* and the adjectival usage of *be used to*, which will be sorted as different categories.

The next step is to find the intervening words between *used* and *to*. 'use * to', 'vse * to', 'used * to', and 'vsed * to' are searched for. The asterisk between *used* and *to* means any possible words. The normal verb *use* in (21), meaning 'to carry out', is deleted, leaving only relevant results. The passive voice is deleted as well:

(21) Lord Hervey used paint to soften his ghastly appearance.

(1739, Walpole, Letters [CLMETEV])

As for the tagged texts, 'us*_VB* *_* to_TO' and 'vs*_VB* *_* to_TO' are typed. With this type of insert, *used not to* can also be searched for. If the intervening word between *used* and *to* is the negator, adverbs, or adjunct as (22), (23), and (24), they are included in the calculation of *used to*.

(22) I vse not to kisse men. (1534-1553, Udall, *Roister Doister* [PPCEME])

(23) I used often to laugh at your honest simple neighbour Flamborough.

(1766, Goldsmith, *The vicar of Wakefield* [CLMETEV])

(24) There was a laundres of the towne, whose daughter used often to the court to bring home shirts and bands.

(1608, Armin, *A nest of ninnies* [PPCEME])

Chapter 4 Results and Analysis

Chapter 4 presents the results from the four corpora and their analysis. In the first section, the frequency of *used to* throughout its history is presented in order to understand any increase in the usage of *used to*. Second two is the frequency of *used to*, excluding the present tense usage. This investigation is intended to find whether the usage of *used to* may be influenced or not by the disappearance of the present tense usage of *use to*. This is followed by the third section, the present tense of *be used to*, which is said to be the substitute for present tense usage of *use to* (Visser, 1969-1973). In sections four and five, data about *used to* with inanimate subjects and *used to* with stative verbs are presented so as to contrast with their counterparts: *used to* with animate subjects and *used to* with nonstative verbs. The purpose for these two is to attempt to discover whether these two may have pressured *used to* to undergo the process of grammaticalization, since some examples in Tagliamonte and Lawrence (2000) are shown in stative verbs and the inanimate subjects do exist in present day English. Section six presents the results of negative forms of *used to*, which generally makes *used to* act as either a semi-modal or a lexical verb. Finally, this chapter ends with the percentage of subjects, so as to compare and contrast the results to Tagliamonte and Lawrence (2000), and the historical usage of personal subjects in *used to*.

4.1 Trends in the usage of *used to*

This section is the result of the trend in the frequency of *used to*. Present tense usage of *use to* and past tense *used to* are both searched for the four corpora, including their variant spellings, such as *vsed to*, and inflections, *useth to*. As is mentioned in Chapter 3, the intervening words are allowed only if they are negators, adverbs, or

adjuncts. Moreover, animate subjects and inanimate subjects are not differentiated during the analysis of the overall trend of the usage of *used to*. Different time spans are presented separately as in Figures 1-4.

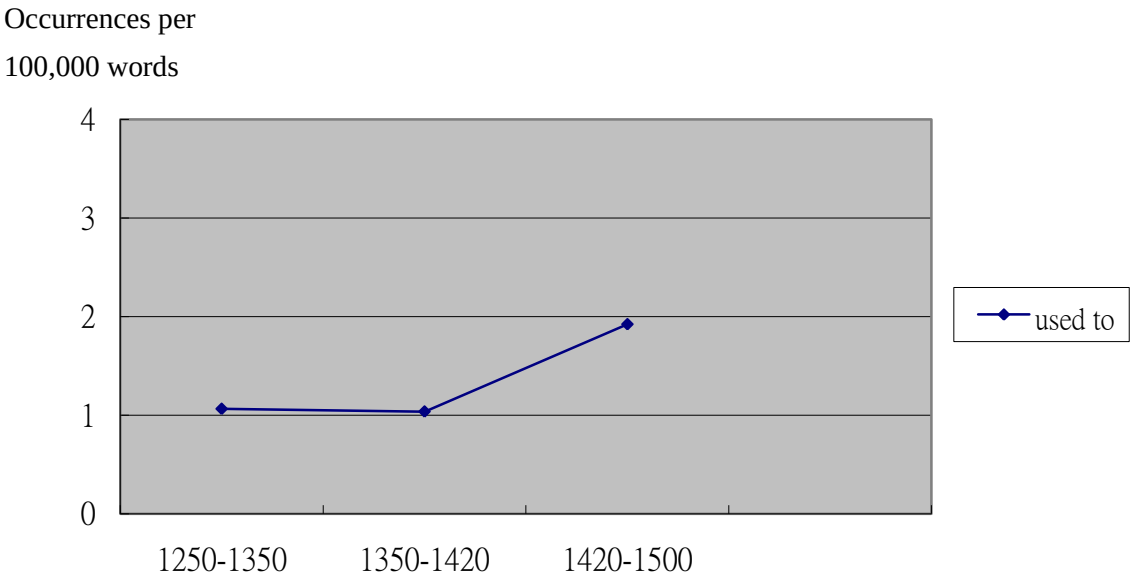

Figure 1. The trend of *used to* in Penn-Helsinki Corpus of Middle English 2 (PPCME2) (Subperiods: 100 years, 70 years, and 80 years, respectively)

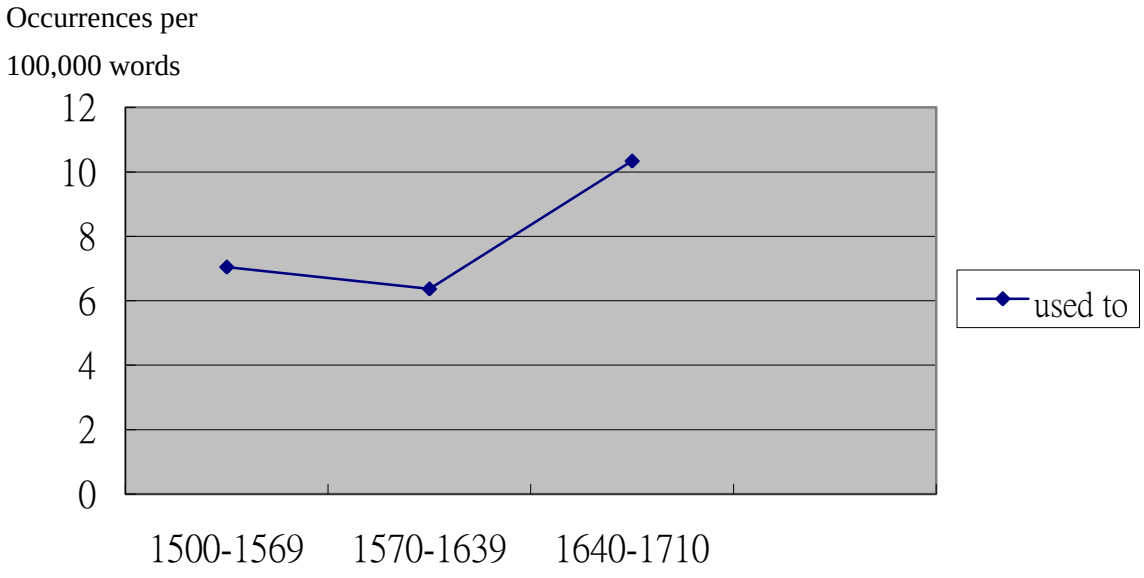

Figure 2. The trend of *used to* in Penn-Helsinki Parsed Corpus of Early Modern English (PPCEME) (Subperiods: 70 years).

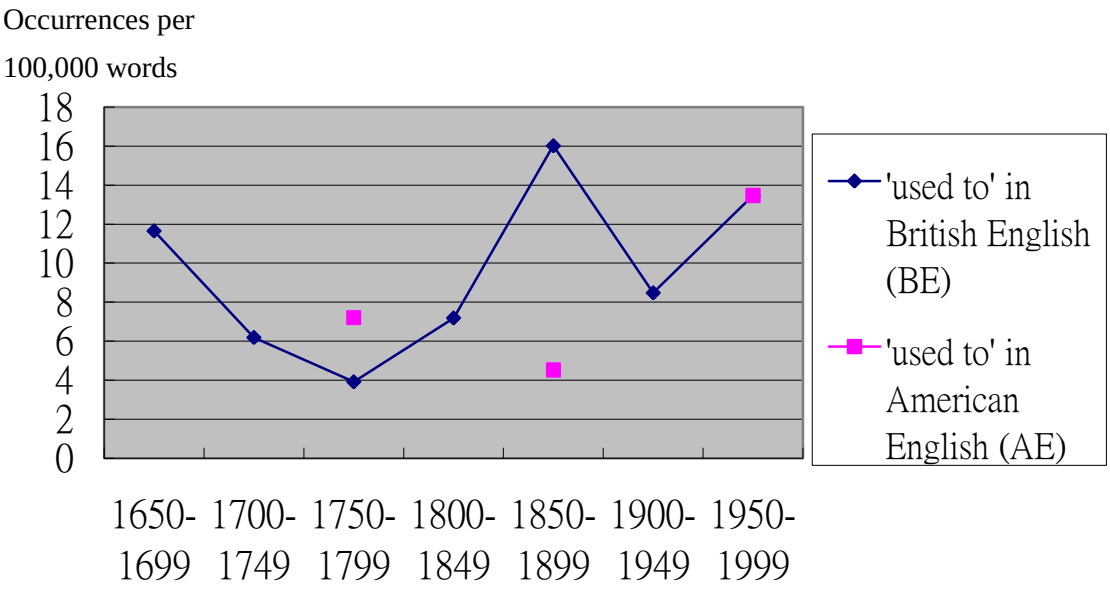

Figure 3. The trend of *used to* in A Representative Corpus of Historical English Registers (ARCHER) (Subperiods: 50 years).

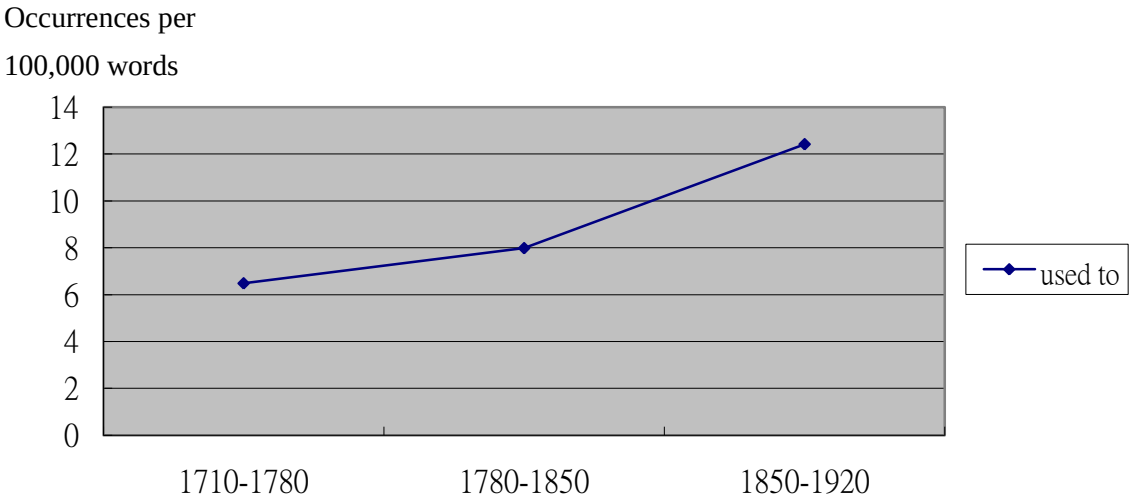

Figure 4. The trend of *used to* in The Corpus of Late Modern English Texts Extended Version (CLMETEV) (Subperiods: 70 years).

As is demonstrated above, these four graphs show the frequency of *used to* and *use to* per 100,000 words in different corpora and time periods. In Figure 1, the frequency of *used to* was searched for so as to present the occurrence in the Middle English period, from 1150 to 1500. Figure 2 illustrates the frequency in the Early Modern English period, from 1500 to 1710. Figure 3 shows the usage of *used to* and

use to from Early Modern English to present day English, and the time span of the late 17th century is covered with PPCEME. In addition, different from Figure 2 and Figure 4, Figure 3 also presents the variety of American English in three subperiods. Figure 3 demonstrates the frequency of *used to* and *use to* from the 18th century to the early 20th century, which is the following years after the periods of PPCEME. Of course the periods in CLMETEV and ARCHER are in the same time span. In addition to that, CLMETEV can be considered the corpus linking the Late Modern English period to PPCEME, since both of their time spans are divided into seventy years. Nevertheless, one limitation that should be noticed is that the distribution of genres in CLMETEV is not clear, compared with those in PPCEME. Therefore, CLMETEV is the supplement.

The trend of the frequency of *used to* in British English is thoroughly illustrated in the four graphs. It is well acknowledged that the usage of *used to* occurs frequently in the 13th century (Bybee et al. 1994), and instances of *used to* cannot be found before 1250[7] in PPCME2. In general, the frequency of *used to* in the Middle English period is very low, and there were no more than two occurrences per 100,000 words during the 250 years. In Figure 2, it can be claimed that there was no difference between the subperiods of 1500-1569 and 1570-1639. The frequency of *used to* is approximately six or seven words per 100,000 words. However, during 1640 to 1710, the frequency of *used to* increases to ten words per 100,000 words. Likewise, in Figure 3, the frequency of *used to* in similar subperiods, 1650 to 1699, is approximately thirteen words per 100,000 words. Although the data in ARCHER shows that the frequency of *used to* is relatively high in the late 17th century, the frequency of *used to* in the subsequent years declines to nearly 6 words per 100,000

[7] I assume the dating in PPCME2 is accurate, and the sentence which was found as the earliest sentence for *used to* is also quoted in the *OED*, which dates it the same year of that in PPCME2. This sentence will be adapted in Chapter 5.

words.

The situation is almost the same from the subperiod 1640-1710 in Figure 2 to the subperiod 1710-1780 in Figure 4. In other words, Figure 4 presents the trend of the frequency of *used to* after PPCEME, showing that the frequency of *used to* decreases to approximately six words per 100,000 words.

After the 18th century, the frequency of *used to* starts to increase, and especially in the late 19th century, it rises up to over 16 words per 100,000 words in Figure 3 and approximately 12 words per 100,000 words in Figure 4. Nevertheless, in the early twentieth century, the frequency of *used to* decreases half of the same amount to approximately nine words per 100,000 words. This is followed by a moderate increase in the period of 1950 to 1999, with approximately 14 words per 100,000 words.

Although Figure 2 and Figure 4 do not include the frequency of *used to* in American English, and Figure 3 shows a mere three subperiods, it is worth including in order to understand and briefly analyze the similarity and difference between these two varieties of English in the same subperiods. Unlike British English, the frequency of *used to* in American English is relatively low in the subperiod of 1850 to 1899, whereas in the late 18th century, the difference between the frequency of *used to* in the two varieties is very slight. That is, the frequency of *used to* in American English decreases, whereas that in British English increases. However, it is interesting to find out that during 1950 to 1999, the frequency of *used to* in both varieties reach the approximately 14 words per 100,000 words mark.

There are several findings based on the four graphs. First of all, the trend of the frequency of *used to* in either ARCHER or the combination of PPCEME and CLMETEV is consistent, showing a decrease in the second half of the 17th century, and a rise from the late 18th century to the early 20th century. The increasing frequency of *used to* in the late 19th century might suggest a period of grammaticalization.

Second, the frequency of *used to* in the modern English period is similar. Third, compared with British English, American English in late modern English periods seems to be conservative. Furthermore, although the frequency of *used to* in the late 19th century increases, it falls in the early 20th century, before the reversal rise in the second half of the 20th century. Finally, *used to* is a low frequency word in the four corpora, implying that *used to* is hardly used in English.

With regards to low frequency usage, Hoffmann (2004: 196-197) states that quantitative results from the corpora may not be reliable, since the frequency might be different in different corpora; however, its qualitative data are not influenced, because the sentences do show their linguistic features. A qualitative analysis will be discussed in Chapter 5. Although Hoffmann makes this statement, the results of the same subperiods from PPCEME, ARCHER, and CLMET are not completely different. In addition, if the results of the frequency of *used to* that Leech (2003: 229) proposes are adapted as Table 1, the differences of the frequency of *used to* is not so significant from the result that is conducted in this dissertation.

	British English		American English	
	LOB (1961)	FLOB (1991)	Brown (1961)	Frown (1991)
Used to	8.6	9.7	5.2	7.1

Table 1. The frequency of used to per 100,000 words in four written corpora (adapted from Leech, 2003: 229)[8]

The reason is that the frequency of *used to* in LOB, which represents British English of the year 1961, is around eight occurrences per 100,000 words, which is not different from the frequency of used to in ARCHER in the subperiod of 1900 to 1949, with approximately eight words.

[8] Only *used to* is presented. The original result is shown in the frequency based on the corpora. Since LOB, FLOB, Brown, and Frown are well-known corpora, with the size of one million words, Table 1 here is shown in the frequency that is done in this paper, namely, the occurrence per 100,000 words.

Table 2 to Table 6 are the results of *used to* shown in total numbers and frequency per 100,000 words, which is the same as the graphs.

	1250-1350		1350-1420		1420-1500	
	Frequency	Total	Frequency	Total	Frequency	Total
Used to	1.06	1	1.03	4	1.92	5

Table 2. The frequency of *used to* and its total instances in PPCME2.

	1500-1569		1570-1639		1640-1710	
	Frequency	Total	Frequency	Total	Frequency	Total
Used to	7.04	40	6.36	40	10.34	56

Table 3. The frequency of *used to* and its total instances in PPCEME.

	1650-1699		1700-1749		1750-1799		1800-1849		1850-1899		1900-1949		1950-1999	
	F	N	F	N	F	N	F	N	F	N	F	N	F	N
Used to	11.65	21	6.19	10	3.92	7	7.19	13	16.02	30	8.18	15	13.47	24

Table 4. The frequency of *used to* and its total instances in British English in ARCHER. (In the table, N means the total numbers, and F represents the frequency)

	1750-1799		1850-1899		1950-1999	
	Frequency	Total	Frequency	Total	Frequency	Total
Used to	7.21	13	4.53	8	13.47	25

Table 5. The frequency of *used to* and its total instances in American English in ARCHER.

	1710-1780		1780-1850		1850-1920	
	Frequency	Total	Frequency	Total	Frequency	Total
Used to	6.49	197	7.98	457	12.41	776

Table 6. The frequency of *used to* and its total instances in CLMETEV.

4.2 The trend of *used to* without present tense usage

With reference to the decrease of the trend of *used to* from 1650 to 1799 in ARCHER, and the combined subperiods of 1640-1710 in PPCEME and 1710-1780 in CLMETEV, the present tense usage of *use to* might be one of the factors involved,

because the present tense usage of *used to* nearly disappeared in 1700s (Bybee et al. 1994: 155). This raises the question of whether the disappearance of *use to* may influence the development of *used to*. Therefore, the purely past tense usage of *used to* was examined. The present tense usage of *use to* was deleted from the total number of occurrences of *used to*. The trends of frequencies of *used to* in the past tense usage are presented in the following graphs and tables.

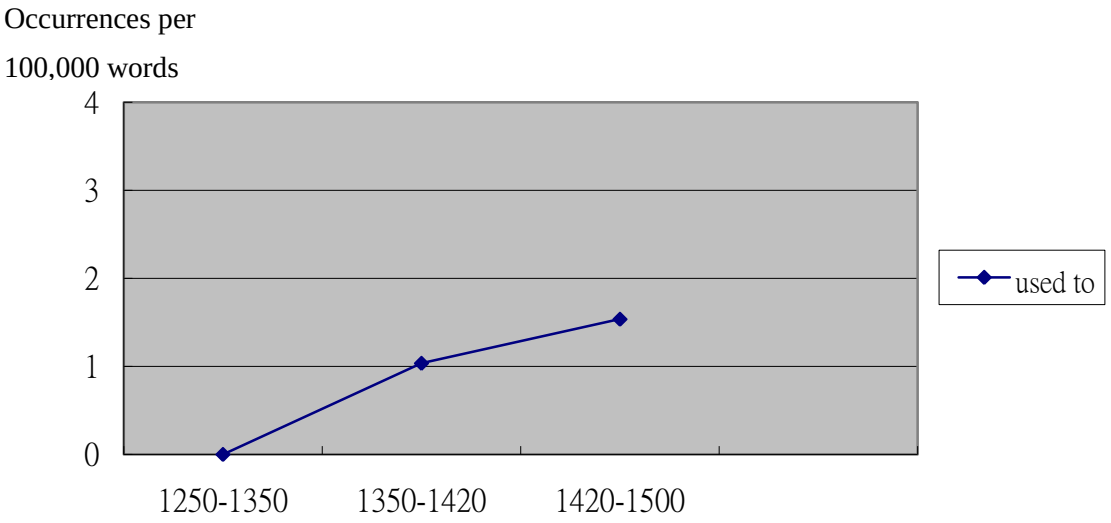

Figure 5. The trend of *used to* without *use to* in Penn-Helsinki Corpus of Middle English 2 (PPCME2) (Subperiods: 100 years, 70 years, and 80 years, respectively)

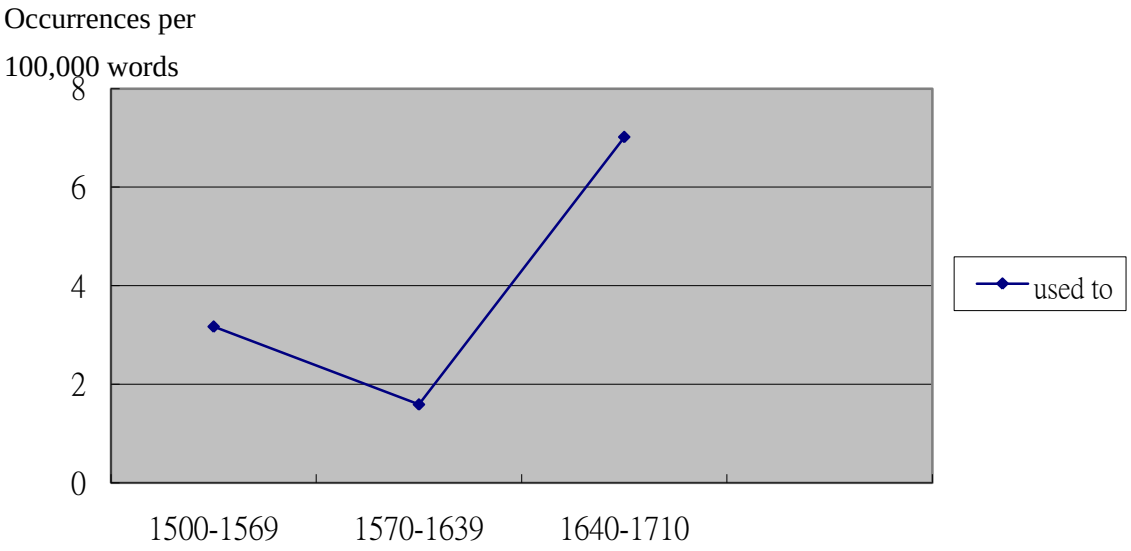

Figure 6. The trend of *used to* without *use to* in Penn-Helsinki Parsed Corpus of Early Modern English (PPCEME) (Subperiods: 70 years).

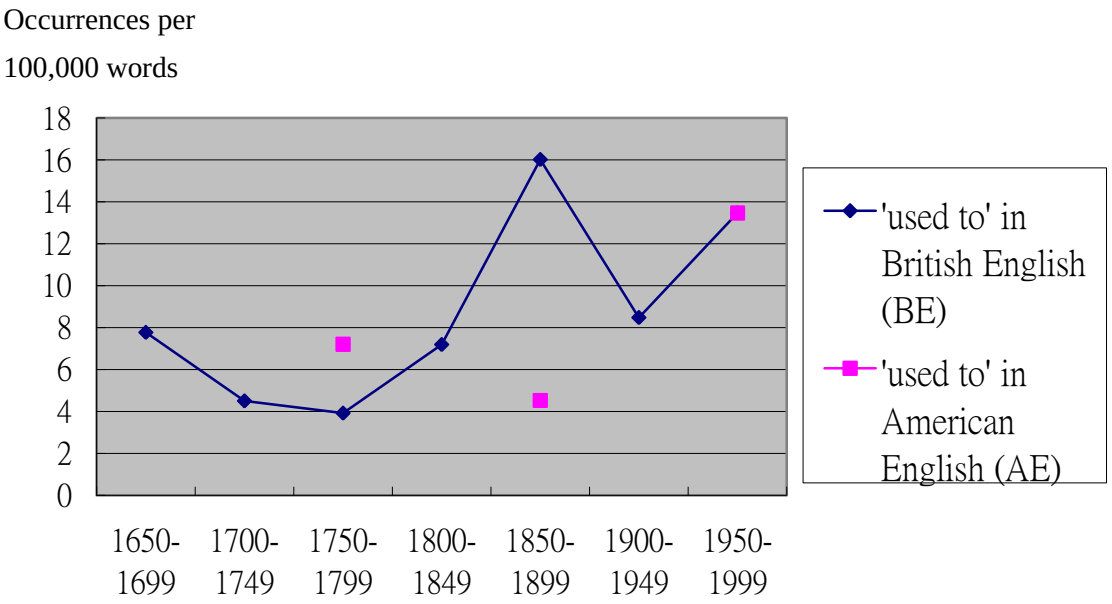

Figure 7. The trend of *used to* without *use to* in A Representative Corpus of Historical English Registers (ARCHER) (Subperiods: 50 years).

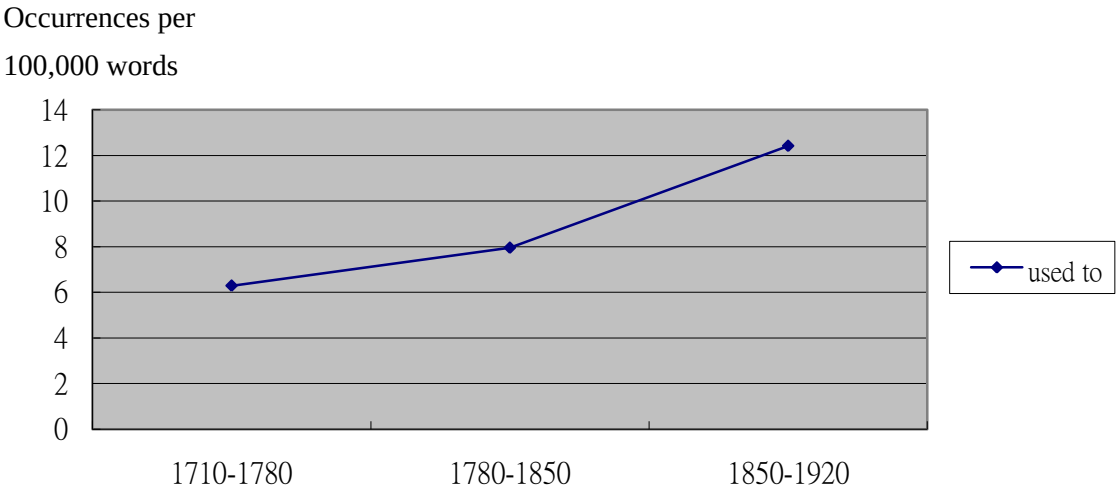

Figure 8. The trend of *used to* in The Corpus of Late Modern English Texts Extended Version (CLMETEV) (Subperiods: 70 years).

	1250-1350		1350-1420		1420-1500	
	Frequency	Total	Frequency	Total	Frequency	Total
Used to	-	-	1.03	4	1.92	5

Table 7. The frequency of *used to* without *use to* and its total instances in PPCME2.

	1500-1569		1570-1639		1640-1710	
	Frequency	Total	Frequency	Total	Frequency	Total
Used to	3.17	18	1.59	10	7.02	38

Table 8. The frequency of *used to* and its total instances in PPCEME.

	1650-1699		1700-1749		1750-1799		1800-1849		1850-1899		1900-1949		1950-1999	
	F	N	F	N	F	N	F	N	F	N	F	N	F	N
Used to	7.77	14	4.50	8	3.92	7	7.19	13	16.02	30	8.18	15	13.47	24

Table 9. The frequency of *used to* without *use to* and its total instances in British English in ARCHER. (In the table, N means the total numbers, and F represents the frequency)

	1750-1799		1850-1899		1950-1999	
	Frequency	Total	Frequency	Total	Frequency	Total
Used to	7.21	13	4.53	8	13.47	25

Table 10. The frequency of *used to* without *use to* and its total instances in American English in ARCHER.

	1710-1780		1780-1850		1850-1920	
	Frequency	Total	Frequency	Total	Frequency	Total
Used to	6.29	191	7.94	455	12.41	776

Table 11. The frequency of *used to* without *use to* and its total instances in CLMETEV.

Graphs illustrate the overall trend of *used to* without *use to*, while tables that supplement the graphs, show the values of the frequencies of *used to* and total number of occurrences. Figure 5 and Table 7 show the occurrence of the past tense usage of *used to* in PPCME2. Figure 6 and Table 8 show the frequency of *used to* without *use to* in PPCEME. In Figure 7, Table 9 and Table 10, the frequency of past tense usage of *used to* from the ARCHER are exhibited. Figure 8 and Table 11 display the frequency of *used to* excluding *use to* in CLMETEV. Compared with Figure 1, the frequency of pure past tense usage of *used to* in Figure 5 is almost the same as that in Figure 1, except for no occurrences of past tense usage in the subperiod of 1250-1350 in

PPCME2. In Figure 6, the trend of *used to* without *use to* is slightly different from that of *used to* in Figure 2. The rising trend in the corpus of PPCEME is comparatively noticeable. The reason is that during the subperiods of 1570-1639 and 1640-1710, the past tense usage is used more often. Or alternatively, the past tense usage in the subperiod of 1570-1639 is relatively infrequent in this corpus. The frequency of past tense usage of *used to* in Figure 7 and Figure 8 is nearly the same as that of *used to* in Figure 3 and Figure 4. The four graphs indicate that the present tense usage of *use to* does not influence the development of *used to*. The disappearance of *use to* does not impact the decrease of *used to* in ARCHER and slight drop of *used to* in the combined subperiods of 1640-1710 in PPCEME and 1710-1780 in CLMETEV. Of course, compared to the graphs and tables, it is not difficult to notice the fall in the frequency of *use to* in the subperiods of 1570-1639 and 1640-1710 in PPCEME.

4.3 *Be used to*, the substitute for *use to*?

The time of the disappearance of present tense usage of *use to* coincides with what Bybee et al. (1994) states. According to Visser (1969-1973: 1411), *be used to* is the substitute for the disappearance of the present tense usage of *use to*. Therefore, in this section, the frequency of *be used to* was searched for in order to understand whether such a replacement is the case or not. In the search of *be used to*, only the present tense usage of *be used to* was counted as the occurrence per 100,000 words. In other words, past tense usage, present perfect, and past perfect usage in examples (1), (2), and (3) are excluded.

(1) He was used to it, I supposed.

(1842, Borrow, *The Bible in Spain* [CLMETEV])

(2) They have been us'd to a soft way of Wooing, and cannot brook this

harshness. (1693, 1693powe.d2b [ACHER])

(3) Here I met the two Misses Strickland--Agnes, with her ringlets and look of faded prettiness, accepting homage as one who had been *used to* it all her life. (1855, Linton, *The autobiography of Christopher* [CLMETEV])

In addition to the above method, the usage of *get used to* was also excluded to the frequency of *be used to*.

(4) They get used to luxury.

(1904, Galsworthy, *The island Pharisees* [CLMETEV])

The reason is that although the meaning of *be used to* and *get used to* are similar, the time of their existence is different. The appearance of *get used to* was found in the second half of the 19th century in ARCHER and CLMETEV, whereas that of *be used to* was found in the subperiod of 1710-1780 in CLMETEV. This indicates that there is no correlation between the substitution of *get used to* for *use to*, because the time of its emergence is one hundred years later than the disappearance of *use to*.

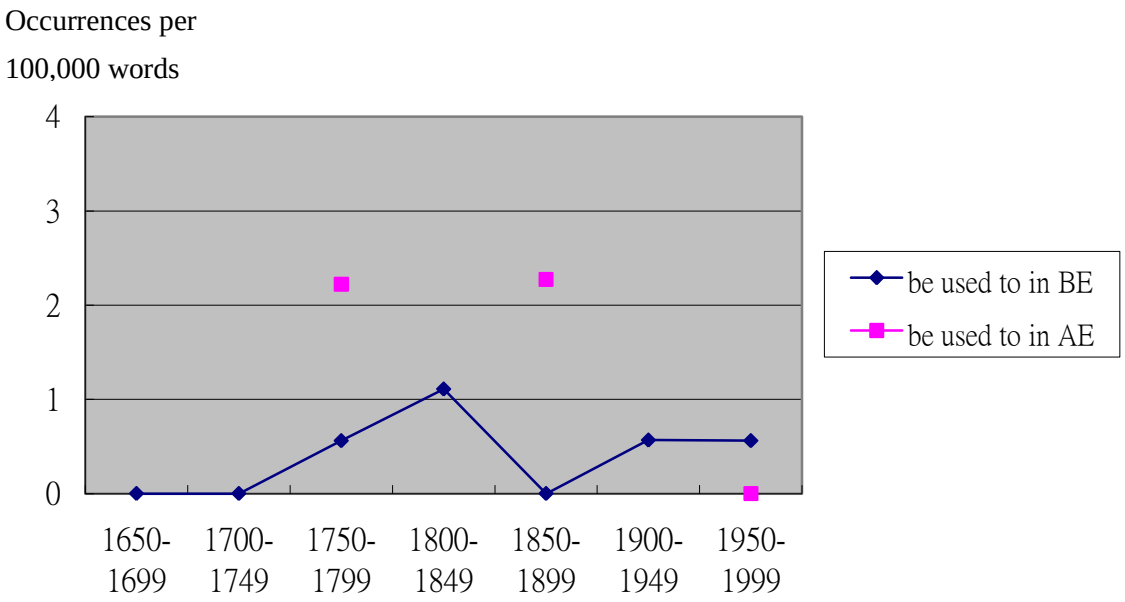

Figure 9. The trend of present tense usage of *be used to* in ARCHER (Subperiods: 50 years).

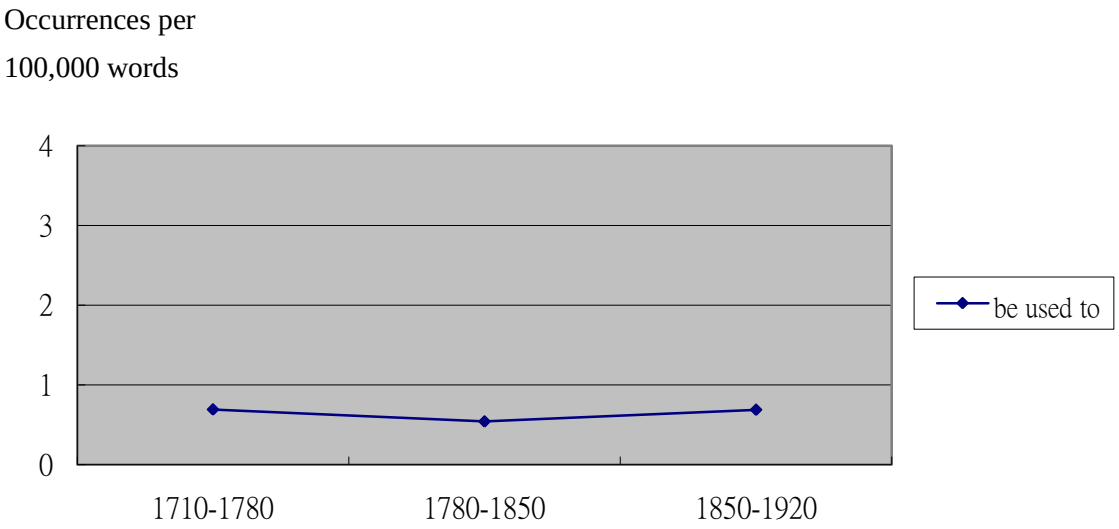

Figure 10. The trend of present tense usage of *be used to* in CLMETEV (Subperiods: 70 years).

	1650-1699		1700-1749		1750-1799		1800-1849		1850-1899		1900-1949		1950-1999	
	F	N	F	N	F	N	F	N	F	N	F	N	F	N
Used to	-	-	-	-	0.56	1	1.11	2	-	-	0.57	1	0.56	24

Table 12. The frequency of present tense usage of *be used to* and its total instances in British English in ARCHER. (In the table, N means the total numbers, and F represents the frequency)

	1750-1799		1850-1899		1950-1999	
	Frequency	Total	Frequency	Total	Frequency	Total
Used to	2.22	4	2.27	4	-	-

Table 13. The frequency of present tense usage of *be used to* and its total instances in American English in ARCHER.

	1710-1780		1780-1850		1850-1920	
	Frequency	Total	Frequency	Total	Frequency	Total
Used to	0.69	21	0.54	31	0.69	43

Table 14. The frequency of present tense usage of *be used to* and its total instances in CLMETEV.

Figure 9 and Figure 10 are the graphs of present tense usage of *be used to* in ARCHER and CLMETEV. Tables 12-14 are the supplement for the two graphs.

Overall, Figure 9 and Figure 10 demonstrate that the frequency of present tense usage of *be used to* is very rare, which is similar to that of *used to*. However, what is different is that in the corpus of CLMETEV, the frequency of present tense usage of *be used to* remains stable during the 18th and 19th centuries. Although the situation is slightly different in ARCHER, where present tense usage of *be used to* cannot be found in some subperiods, the frequency of it in British English is consistently below one occurrence per 100,000 words, except for the subperiod of 1800-1849. However, the exception in the subperiod of 1800-1840 is not so significant, because the increase of 0.5 word per 100,000 words does not mean anything outstanding. Likewise, the frequency of present tense usage of *be used to* in American English is the same, which does not see any increase in the three subperiods. The reason that there is no match in ARCHER may be that the number of words in ARCHER is small compared with CLMETEV, and *be used to* has a low frequency usage.

From the two graphs and three tables, it is obvious that the disappearance of *use to* does not influence the frequency of present tense usage of *be used to*. This means that the substitute of *use to* for *be used to* may not be possible, based on the search results of the two corpora.

4.4 *Used to* with animate subjects and inanimate subjects

For the search of the usage of *used to* with inanimate subjects, there are several steps. First of all, *used to* is searched for throughout the four corpora. Then, the subject of each instance is carefully examined. The subjects of *used to* are separated into two categories: animate subjects and inanimate subjects. Furthermore, relative pronouns which refer to the inanimate subjects, are grouped into the category of inanimate, while relative pronouns which reference animate subjects are in the group of animate subjects. Example (5) is the relative pronouns in inanimate subject group,

because the relative pronoun *that* refers to *one of those long rustic tables*. Example (6) is the relative pronouns in animate subject group, since it means a man or her Gallant.

(5) … and under the sign was one of those long rustic tables that used to stand outside most of the free English inns.

(1914, Chesterton, *The wisdom of father Brown* [CLMETEV])

(6) The Excuse she made was that her Gallant, a man that used to be along with her, did Steal them.

(1768-1771, Cook, *Captain Cook's journal during the first voyage round the world* (s) [CLMETEV])

	1250-1350		1350-1420		1420-1500	
	%	Number	%	Number	%	Number
Used to with animate subjects	100%	1	100%	4	80%	4
Used to with inanimate subjects	-	-	-	-	20%	1

Table 15. The percentage of *used to* with animate subjects and inanimate subjects and its total instances in PPCME2.

	1500-1569		1570-1639		1640-1710	
	%	Number	%	Number	%	Number
Used to with animate subjects	90%	36	83%	33	83%	46
Used to with inanimate subjects	10%	4	17%	7	17%	10

Table 16. The percentage of *used to* with animate subjects and inanimate subjects and its total instances in PPCEME.

	1650-1699		1700-1749		1750-1799		1800-1849		1850-1899		1900-1949		1950-1999	
	%	N	%	N	%	N	%	N	%	N	%	N	%	N
Used to with animate subjects	91%	19	100%	10	100%	7	85%	11	70%	21	80%	12	80%	12
Used to with inanimate subjects	9%	2	-	-	-	-	15%	2	30%	9	20%	3	20%	4

Table 17. The percentage of *used to* with animate subjects and inanimate subjects and its total instances in ARCHER (British English) (N means the total numbers)

	1750-1799		1850-1899		1950-1999	
	%	Number	%	Number	%	Number
Used to with animate subjects	85%	11	87%	7	92%	23
Used to with inanimate subjects	15%	2	13%	1	8%	2

Table 18. The percentage of *used to* with animate subjects and inanimate subjects and its total instances in ARCHER (American English) (N means the total numbers)

	1710-1780		1780-1850		1850-1920	
	%	Number	%	Number	%	Number
Used to with animate subjects	84%	166	90%	410	86%	672
Used to with inanimate subjects	16%	31	10%	47	14%	104

Table 19. The percentage of *used to* with animate subjects and inanimate subjects and its total instances in CLMETEV.

Before the discussion of tables, one thing should be noted is that the frequency of *used to*, as mentioned in 4.1, is very low. This means that the percentage may be biased if the number of hits is very small. Nonetheless, there are still some features that can be discussed, if the biased number of percentage is ignored.

Tables 15-19 are the percentage of occurrences of *used to* with animate subjects and inanimate subjects in the four corpora. From the historical corpora, it is clear that

the appearance of *used to* with inanimate subjects starts in the 15th century. The next three subperiods in Figure 16, retain nearly the same proportion of the percentage of *used to* with inanimate subjects, just below 20%. In ARCHER, shown in Figure 17, there is no *used to* with inanimate subjects found in the subperiods of 1700-1749 and 1750-1799. In the same Figure, the percentage of *used to* with inanimate subjects in the subperiods of 1850-1899 is 30%; however, the comparatively large proportion of occurrences might not be plausible, since compared with the same subperiod of 1850-1920 in Figure 19, the percentage of *used to* with inanimate subjects is not so high. In Figure 19, the proportion of used to with inanimate subjects is very low, constituting approximately 15%. Similarly, in American English, the usage of *used to* with inanimate is even less. Therefore, in general, the overall of the usage of *used to* with an inanimate subject does not increase, making the distribution of animate subjects and inanimate subjects balanced. Moreover, the usage of *used to* with inanimate subject throughout the history of *used to* after the Middle English period is merely one-fifth of the whole usage of *used to*. This suggests that *used to* with an inanimate subject cannot be explained as the major cause for grammaticalization.

4.5 *Used to* with stative verbs and nonstative verbs

The values for *used to* with stative verbs and nonstative verbs do not differ greatly from the general trend of *used to*. Past tense usage and present tense usage of *used to* are included since it is meaningless to exclude either of them. Then, what is examined is the verb after *used to*, either it is a stative verb or a nonstative verb. Examples of stative and nonstative verbs are provided as (7) and (8), respectively.

(7) I never thought when I used to see you around with the other kids that you'd turn out to be a regular businesswoman. (1954, 1954park.d8a

[ARCHER])

(8) Every day after lunch I used to go to my room over the pantry and lie down for half an hour. (1973, 1973vini.j8a [ARCHER])

	1250-1350		1350-1420		1420-1500	
	%	Number	%	Number	%	Number
Used to with nonstative verbs	100%	1	100%	4	100%	5
Used to with stative verbs	-	-	-	-	-	-

Table 20. The percentage of *used to* with stative verbs and nonstative verbs and its total instances in PPCME2.

	1500-1569		1570-1639		1640-1710	
	%	Number	%	Number	%	Number
Used to with nonstative verbs	90%	36	87%	35	71%	40
Used to with stative verbs	10%	4	13%	5	29%	16

Table 21. The percentage of *used to* with stative verbs and nonstative verbs and its total instances in PPCEME.

	1650-1699		1700-1749		1750-1799		1800-1849		1850-1899		1900-1949		1950-1999	
	%	N	%	N	%	N	%	N	%	N	%	N	%	N
Used to with nonstative verbs	76%	16	70%	7	85%	6	92%	12	63%	19	67%	10	71%	17
Used to with stative verbs	24%	5	30%	3	15%	1	8%	1	37%	11	33%	5	29%	7

Table 22. The percentage of *used to* with stative verbs and nonstative verbs subjects and its total instances in ARCHER (British English) (N means the total numbers)

	1750-1799		1850-1899		1950-1999	
	%	Number	%	Number	%	Number
Used to with nonstative verbs	64%	9	50%	4	64%	16
Used to with stative verbs	31%	4	50%	4	36%	9

Table 23. The percentage of *used to* with stative verbs and nonstative verbs and its total instances in ARCHER (American English) (N means the total numbers)

	1710-1780		1780-1850		1850-1920	
	%	Number	%	Number	%	Number
Used to with nonstative verbs	77%	151	90%	366	70%	530
Used to with stative verbs	23%	46	20%	91	30%	231

Table 24. The percentage of *used to* with stative verbs and nonstative verbs and its total instances in CLMETEV.

Tables 20-24 exhibit the proportion of *used to* with stative verbs and nonstative verbs in PPCME2, PPCEME, ARCHER, and CLMETEV. It is obvious from Table 20 that in the corpus, the number of *used to* with stative verbs is zero, showing that it might not be used before 1500. In Table 21, the usage of *used to* with stative verbs appears, but the percentage of it is still comparatively low. After the subperiod of 1570-1639, the percentage of *used to* with stative verbs increases, from approximately 10% to 29% in the subperiod of 1640-1710. Although there are two subperiods with different proportion in Table 22, the percentage of the rest is very similar, approximate between 25% and 30%. The reason for the low percentage might derive from the low frequency in these two subperiods. Table 24 also reveals that the distribution between used to with nonstative verbs and stative verbs is a ratio of roughly 8:2. On the other hand, the percentage of used to with stative verbs in Table 23 is consistently above 30%.

Note that the decrease of the percentage of *used to* with nonstative verbs in the five tables does not mean the decline of the usage of *used to* with nonstative verbs.

Instead, it means that the distribution between stative and nonstative verbs is gradually balanced. In other words, the occurrence of *used to* with stative verbs is keeping up with that of *used to* with nonstative verbs. However, the proportion of it is not so significant as to be considered a cause for grammaticalization. Overall, the use of *used to* with stative verbs is at approximately 30%, and its development is not significant.

4.6 Negation

This section discusses the usage of *used to* in negation. It is mentioned in chapter two that the negative forms of *used to* can be either *used not to* (*usedn't to*) , or *didn't use(d) to*. In addition to that, *never* in present day English is often regarded as a way to express negative sentences, and it often occurs with *used to* in present day English (Denison, 1993: 323). Therefore, the instances were categorized into three groups: *used not to* (*usedn't to*), *did/do not use(d) to* (*didn't/don't use(d) to*), and *never*.

	1500-1569		1570-1639		1640-1710	
	Frequency	Number	Frequency	Number	Frequency	Number
Used not to	0.35	2	0.32	2	-	-
Did/do not used to	0.18	1	-	-	0.55	3
never	-	-	-	-	-	-
Total	0.53	3	0.32	2	0.55	3

Table 25. The frequency of *used to* in negative forms per 100,000 words in PPCEME.

	1710-1780		1780-1850		1850-1920	
	Frequency	Number	Frequency	Number	Frequency	Number
Used not to	-	-	-	-	0.02	1
Did/do not used to	0.16	5	0.03	2	0.02	1
never	-	-	-	-	0.10	6
Total	0.16	5	0.03	2	0.14	8

Table 26. The frequency of *used to* in negative forms per 100,000 words in CLMETEV.

Table 25 and Table 26 are the frequency of *used to* in three negative forms per 100,000 words in PPCEME and CLMETEV. The data from PPCME2 and ARCHER are not demonstrated because no instance of the three negative forms of *used to* is found. In Table 25, *used not to* and *did/do not use(d) to* coexist in the 16th century. The explanation for negative *used to* with *did* or *do* support is the rise of *periphrastic do*, while the existence of *used not to* is a vestigial form, which is still preserved. In the subperiod of 1640-1710, the instance of *used not to* was not found in PPCEME. Likewise, in the corpus of CLMETEV, only one word was matched, with 0.02 occurrence per 100,000 words, which is nearly to zero. During the same time period, the usage of *used to* is used comparatively often with *never*, whose occurrence per 100,000 words is 0.1. However, before jumping to the next section, what should be kept in mind is that no instance of *used not to* in some subperiods does not mean that the usage of *used not to* disappear, since it was found in the subperiod of 1850-1920 in CLMETEV. The possible reason for no match is that compared with affirmative sentences, negative sentences are hardly expressed. Overall, these two tables show that the frequency of *used to* in negative contexts is much less.

4.7 The personal subjects of *used to*

According to Tagliamonte and Lawrence (2000: 336), grammatical person and the selection of habitual past marker are correlated, thus concluding that *used to* occurs with first person subjects more frequently. Therefore, the next quantitative research is about the personal subject of *used to*. In the article, Tagliamonte and Lawrence (2000) divided the personal subjects of *used to* into three groups based on their grammatical number: first person subjects, second person subjects, and third person subjects. Names and the full NPs are, of course, included as third person

subjects Both singular and plurals are included in the three groups; therefore the method will be the same as in Tagliamonte and Lawrence. Likewise, the category of relative pronouns is based on the nouns they refer to. In other words, if the relative pronoun *who* refers to *I*, it is grouped as the first person.

	1250-1350		1350-1420		1420-1500	
	Frequency	Number	Frequency	Number	Frequency	Number
1st subject	-	-	-	-	-	-
2nd subject	-	-	-	-	-	-
3rd subject	1.06	1	1.03	4	1.92	5
Total	1.06	1	1.03	4	1.92	5

Table 27. The frequency of personal subjects in *used to* and its total instances in PPCME2.

	1500-1569		1570-1639		1640-1710	
	Frequency	Number	Frequency	Number	Frequency	Number
1st subject	0.53	3	1.53	10	1.66	9
2nd subject	-	-	0.68	4	0.18	1
3rd subject	6.51	37	4.15	26	8.50	46
Total	7.04	40	6.36	40	10.34	56

Table 28. The frequency of personal subjects in *used to* and its total instances in ARCHER.

	1650-1699		1700-1749		1750-1799		1800-1849		1850-1899		1900-1949		1950-1999	
	F	N	F	N	F	N	F	N	F	N	F	N	F	N
1st subject	1.66	3	0.56	1	0.56	1	1.66	3	7.17	13	3.95	7	3.37	6
2nd subject	1.11	2	1.69	3		-	0.55	1	1.10	2		-	0.56	1
3rd subject	8.88	16	3.94	6	3.36	6	4.98	9	8.28	15	4.53	8	9.54	17
Total	11.65	21	5.63	10	3.92	7	7.19	13	16.57	30	8.48	15	13.47	24

Table 29. The frequency of personal subjects in *used to* and its total instances in ARCHER. (British English) (N means the total numbers, and F represents the frequency)

	1750-1799		1850-1899		1950-1999	
	Frequency	Number	Frequency	Number	Frequency	Number
1st subject	1.66	3	1.14	2	8.39	15
2nd subject	-	-	0.55	1	0.56	1
3rd subject	5.55	10	2.84	5	5.03	9
Total	7.21	13	4.53	8	13.98	25

Table 30. The frequency of personal subjects in *used to* and its total instances in ARCHER. (British English) (N means the total numbers, and F represents the frequency)

	1710-1780		1780-1850		1850-1920	
	Frequency	Number	Frequency	Number	Frequency	Number
1st subject	2.37	72	1.42	81	3.14	196
2nd subject	0.16	5	0.30	17	0.34	21
3rd subject	3.96	120	6.26	357	8.22	544
Total	6.49	197	7.98	457	11.70	761

Table 31. The frequency of personal subjects in *used to* and its total instances in CLMETEV.

The frequency of the personal subjects in *used to* is presented in Tables 27-31. In Table 27, the personal subjects of *used to* are all third person subjects. The possible explanation is that the original usage of *used to* is not as a past habitual marker. Table 28 shows that there are some matches whose subject is a first person subject, but the frequency of it is relatively low. In Table 29, although the frequency of *used to* with third person subjects is always higher than the other two, the frequency of *used to* in first person subjects in the subperiod of 1850-1899 is very close to that of *used to* in third person subjects. In American English, the situation is quite similar; that is, the frequency of *used to* in first person subjects is higher than that of *used to* in third person subjects in ARCHER. Overall, these five tables demonstrate that in the four corpora, third person subjects are more often used with *used to*, whereas the frequency of second person subjects in *used to* is very low.

Compared with the results of Tagliamonte and Lawrence (2000) that first person subjects are exploited in *used to*, the data from these four corpora show a higher usage

of third person subjects. There are two possibilities for the differences. The first reason may be that the corpus that Tagliamonte and Lawrence (2000)[9] used was composed of speech-based registers. The corpora which have been used so far are composed of written texts. According to Tagliamonte and Lawrence (2003: 336), the first person subjects are considered to be the most related subjects to the speakers, whereas second and third subjects are comparatively not so close. This means that in the register of conversation, the speakers are paid more attention to. Conversely, because written texts are full of descriptions, the stories of others are of greater concern. However, it is not completely accurate to make such an assumption, since some written texts are author-centered, such as private letters or autobiographies. The second possibility may be that the results presented in this paper are purely the investigation of *used to*, without any other elements. What Tagliamonte and Lawrence did was to analyze the occurrences with *used to*, preterite verbs, and *would* in contemporary English. The subjects of *used to* are first person subjects, whereas the subject of *would* seems to be used in third person subjects. Consequently, if the claim of Tagliamonte and Lawrence needs to be revised, it may be that *used to* is comparatively more frequently used with first person subjects in conversation. In written register, *used to* is more commonly used with third person subjects.

[9] The data that Tagliamonte and Lawrence conducted were audiotaped conversations in British English. The data are, of course, in present day English.

Chapter 5 Qualitative Discussion

Chapter 5 details the qualitative aspects of the development of *used to* based on the instances from the corpora. In addition to the corpora, the *Oxford English Dictionary* (the *OED*) is also used to provide more examples. This chapter is divided into four sections. In section 1, the meaning of *used to* related to that of the verb *use* is discussed. Section 2 is an argument about grammaticalization of *used to*. This is followed by section 3 on negation, which attempts to explain the coexistence of two forms of *used to* in negative contexts. Finally, this chapter ends with section four, about intervening words between *used* and to.

5.1 *Used to*[10] from *use*

In the lists of quotations of *used to* in the OED, the earliest one is attested in 1340, which is the same as in the PPCME2, shown in (1). The meaning of it is to 'be accustomed to or wont to', suggesting that the notion of *used to* in the initial stage is very close to that of *used to* in present day English.

(1) Vor ine al his lyue.. he ne miȝte naȝt do uoluellinde
For in all his life.. he not might not do fulfilling
penonce of one dyadliche zenne yef god wolde usy to
penance of one deadly sins if God would use to
yelde dom.
yield judgement.
'For in all his life.... He might not do fulfilling penance, one of deadly sins, if

[10] *Used to* here is written as a representative for the general discussion both in present tense and past tense. Only when the differences of tense need to be discussed will they be written as the ways they appear.

God would be accustomed to yielding judgment.'

(1340, Dan Michel, *Ayenbite of inwyt* [PPCME2; the *OED*])

However, if only the verb *use* is investigated before 1340, it is not difficult to notice that approximately 100 years before, there was a quotation attested in (2).

(2) Ich halsi þe þet ðu bi-seche him.. þurh alle þe oðre
I soothsay you that you besiege him through all the other
sacremenz þet holi chirche foluweð and useð.
Sacrament that holy church follows and uses.
' I declare to you that you besiege him through all the other sacraments that holy church follows and practices.'

(a.1250, *Lofsong Lefdi* (Nero) in R. Morris Old Eng. *Homilies* [taken from the *OED*])

The meaning of the verb *use* is 'to observe' or 'to engage in', especially religious rites. Although the meaning of the verb *use* in sentence (2) is different from that of *used to* in 1340, there is a correlation between the two meanings. It can be explained that the religious rite was held regularly and people were made to celebrate or observe that religious rite as a regular activity. With the regular participation in the activity, the action becomes a custom for people to pursue. The *use* in (3) is an example for this.

(3) Customes here weren bi-fore I-vsed... And so muche
Customs here were before used And so much
wrechche nam ich nouȝt þat ich nelle þe lawes holde
wretch not.am I not that I not.will the laws hold
Þat ovre Auncestres heolden ȝwyle.
that over Ancestors' held while.'
'Customs were used here before, and I am not wretched so much that I will not hold the laws over the ancestors' held while.'

(*c*1300, *St. Thomas Becket* (Laud) l. 518 in C. Horstmann *Early S.-Eng. Legendary* [taken from the *OED*])

Therefore, *use* was exploited as a verb to describe the customs that are pursued in this short periods from the religious rite in which people engage. After that, it started to be used as a verb describing an activity that people are accustomed to.

In addition to the slight differences in meaning among the verb *use* in the three sentences, it is noticeable that *use* in sentences (2) and (3) is a transitive verb, whereas *use* in sentence (1) is an intransitive verb. The usage of *used to* in this period is considered a full intransitive verb instead of an inseparable phrase. This can be seen in (4) and (5).

(4) Sum vse for curtesye To speke nobly, and ȝyt wyl lye.
Some use for courtesy To speak nobly, and yet will lie.
'Some use to speak nobly for courtesy, and yet will lie.'

(*a*1400 (1303), R. MANNYNG Handlyng Synne (Harl.) [taken from the *OED*])

(5) Clothed.. in the Sarazines guyse & as the sarazins vsen.
Clothed in the Sarazines' guise & as the Sarazins use.
'Clothed in the Sarazines' manner as the Sarazins use.'

(?*a*1425 (1400), *Mandeville's Trav* [taken from the *OED*])

Sentence (4) shows that although it is necessary to have the infinitive after *use*, otherwise the meaning of the sentence will be very vague, the thing preceding the infinitival *to* is not *use* but the purpose of the action. This means that *used to* is exploited in the pattern of 'full verb + infinitival *to*'. In (5) the intransitive verb *use* does not have the infinitival *to*, indicating that it is a full verb with the meaning of the thing which is conducted customarily. Accordingly, if *use* is an intransitive verb, the construction of *used to* is 'full verb + infinitival *to*', and some adjuncts can be inserted between the full verb and the infinitive.

Although the meanings of transitive and intransitive *use* are similar, they cannot be regarded as grammaticalization. The first reason is that *used to* cannot be thoroughly adapted the pathway of grammaticalization of the semi-modal *have to* (see chapter 2). In other words, unlike *have to* in example (6) and (7), the verb in (1) cannot be rewritten as in sentence (8).

(6) I [have to write] [a paper]

(7) I [have] [a paper to write] (adapted from Briton, 1991: 25).

(8) …if God would use judgement to yield.

The meaning of *use* is problematic because *use* cannot follow one of the grammaticalized patterns in *have to*, since if it is transitive, it will describe the religious or traditional things that people celebrate or observe. (9) and (10) can further explain the strangeness of the change of position of the object between two verbs.

(9) I used to eat sashimi.

(10) * I used sashimi to eat.

Apart from that, in terms of semantic aspect, the meaning of it is correlated to the original verb *use*, and in terms of syntactical aspect, the verb is still considered a full verb. Hence, from the above statements, *used to* is not yet grammaticalized. The meaning of *use* from ‘following the customs’ to ‘being accustomed to an activity’ is only an expansion of the verb.

The usage of *used to* shown in examples from the *OED* so far is employed in the present tense or subjunctive. With regards to the development of the usage of past tense, the assumption is provided below. Following the expansion of the meaning of being accustomed to, the meaning of the full verb *use* is further extended to habitual activity. Of course, as a full verb, *use* can be used as either in present tense or past tense, and the usage of past tense *used to* merely describe the past habitual without any notion which ceases the past habitual activity. For example, (11) is a sentence

taken from PPCME2, showing that the meaning of ceasing past habitual is not denoted.

(11) Tis duke Richard usede to bidde his bedes in everiche
This duke Richard used to bid his beds in every
cherche tat he com nyh… In a nygt he come into
church that he came nigh In a night he came into
te chirche allone… While he badde his bedes, he
the church alone While he bad his beds he
leyde his gloves…
laid his gloves
'This duke, Richard, used to make his beds in every church that he came close… In a night he came into the church alone… While he made his beds, he laid his gloves…'

(a 1387, Trevisa, *Polychronicon* [PPCME2])

However, when habitual usage of *used to* is used, it usually occurs with the sense of discontinuing the previous habit. Sentence (12) implies that the thing that one had bought was no longer as cheap as it had been.

(12) …but I could not have them soe cheap as I used to buy for myself, so I bought none.

(1680, Greenestreete, *Greenstreet nee Oxinden to Katherine Warly* [PPCEME])

With the context, the notion of discontinuing the past activity seems to merge with the usage of past tense *used to*, making past tense *used to* have the implicature of discontinuing past actions, no matter whether contexts are provided or not.

5.2 Two development: grammaticalization

With regards to grammaticalization, I assume that the use of *used to* with inanimate subjects and the usage of *used to* with stative verbs can be considered phenomena of grammaticalization. Both of them can be explained as a case of grammaticalization via integrity, one of the parameters in Lehmann (1995; see chapter 2). There are three features in integrity: desemanticization, phonological attrition, and decategorialization. Two of them, desemanticization and phonological attrition, can be said to occur in *used to* with inanimate subjects and *used to* with stative verbs. If *used to* has the feature of desemanticization, the meaning of it will become very unclear, or even bleached. In other words, it is difficult to perceive the meaning of 'being accustomed to' in *used to*. It is shown in example (13) that the meaning of the inanimate subject, bread, cannot be explained as the bread which had the ability to cost nine pence habitually.

(13) A loaf of bread, w=ch= [which] used to cost but 9 pence, costs now 12.

(1692, Hatton, *A private letter* [PPCEME])

Rather, the meaning of it seems to be the representative marker of past tense. Likewise, the situation is similar to *used to* with a stative verb. (14) is an example, exhibiting the desemanticization of *used to* with stative verbs.

(14) When I was younger, I used to think the Prayer Book was wrong….

(1903, Butler, *The way of all fish (s)* [CLMETEV])

If *used to* in (14) still functions as the meaning of *be accustomed to* or *in the habit of*, the sentence will be weird, since the stative verb *think* cannot be done habitually. Nevertheless, sometimes states can be said to have "subinterval property", which means the property of short periods. Thus, *used to* with stative verbs can still be explain to have the habituality:

(15) For years, Sue used to eat bananas for lunch. (Binnick 2005: 343)

In terms of this explanantion, Binnick (2005: 343-346) maintains that states are different from habituality, because the subinterval property is added. Hence, these two instances, (13) and (14) do meet the requirement of desemanticization.

With reference to the process of desemanticization, the instance in (15) is taken from PPCEME in the 16th century might be in the middle of the pathway to desemanticization for *used to* with inanimate subjects.

(16) How then can white wine…be an ingendrer of the matter of the stone, when as it driueth the same matter away, … where as the stone vseth to be ingendred.

'How can white wine then… be a produce of the matter of the stone, when as it drives the same matter away, … where as the stone uses to be produced.'

(1586, Turner, A new boke of the natures and properties of all wines [PPCEME])

In (15), it is very unclear whether *vseth to* functions as a marker without any meaning of habituality, or it still has the notion that the stone is in the habit of being produced. Of course, if the inanimate subject is considered to be undergoing desemanticization, *vseth to* here is regarded as a marker. However, the verb after *vseth to* in (15) is expressed in passive voice, which makes this sentence ambiguous. That is, the passive voice makes the inanimate subject as a theme, not an agent. If the stone is the agent, *vseth to* can be considered as a marker between the inanimate subject and the passive voice *be*. On the contrary, if it is a theme, there might be an agent that does it. This makes *vseth to* have the sense of habitual aspect. Hence, the bleaching for the meaning of habituality is not complete enough in this period, the year 1586.

Apart from the first feature of integrity, phonological attrition also occurred in *used to*. According to Visser (1969-1973: 1415), the pronunciation of *used to* can be assumed to undergo assimilation: /zdt/ > /ztt/ > /stt/ > /st/, which encourages its

analysis as a semi-modal; the evidence for the cline is the orthography of *used to* written in the 17th century:

(17) You are not so fond of me, Jenny, as you use to be [later edd. 'used']

(1728, *The Beggar's Opera II*, *iv*; adapted from Visser, 1969-1973: 1415)

Based on the content, *use to* in (17) is the past tense usage, and the deletion of *d* may be that the phoneme /d/ in *used to* is not produced. In present day English, there are two possibilities based on the usage of *used to*. If *used* in *used to* is expressed in affirmative contexts, there is little doubt that the pronunciation is /jus:/ in /ju:stu/ or /ju:stə/ (Palmer 1965: 40, Leech 1971: 49); if *used to* is uttered in negative form of *used not to*, it is pronounced as /ju:st/. By contrast, the pronunciation of passive voice *used* is /ju:zd/. Therefore, the cline of assimilation made by Visser can be further added as: /ju:zdt/ > /ju:ztt/ > /ju:stt/ > /ju:st/ > /ju:s/, which reveals the loss of phonological substance in the last two stages.

However, even though the above statements argue that *used to* is treated as a past tense marker or a semi-modal, some instances of *used to* as a past tense marker are controversial. The sentence in (18) is an example.

(18) She did not use to know there were doors or windows in the house.

(1823, Hazlitt, *Liber Amoris* [CLMETEV])

In (18), *used to* is used with a stative verb; therefore, as the above statement of grammaticalization, *used to* should be considered a marker or a semi-modal. Nonetheless, the morphosyntacitc properties of *used to* in negative contexts makes the argument problematic. *Used to* in (18) occurred with *do* support, indicating that it can be considered as a full verb. On the other hand, the example (18) can also be written as the sentence (19), which is regarded as a semi-modal:

(19) She used not to know there were doors or windows in the house.

5.3 Negation

The attested quotation of *used not to* in the *OED* is shown in (20):

(20) In þat tyme, men usede nouȝt to bulde no bostful
In that time, men used not to build no boastful
buldnes
buildings
'In that time, men used not to build boastful buildings.'
(*a*1387, J. TREVISA tr. R. Higden *Polychron* [taken from the *OED*] *)*

The sentence is dated to approximately 1387, which means that *used* in *used not to* was considered as a full verb plus a negator; in addition, the year was even earlier than that of the rise of *do* or *did* support. It is acknowledged that before the increasing use of periphrastic *do*[11] in the early modern English period, there are two types of the negative forms of *used to*. In chapter four, Figure 25 shows that both ways are written. This might mean that the category of *used to* was unclear during that period, since it could behave as a lexical verb or an auxiliary-like verb. Two different usages of *used to* in negative contexts are shown in (21) and (22), respectively, in closed periods.

(21) for Men use not to put their own Works in the Catalogue of those that they have in their Study (1590, judall-e2-p2 [PPCEME])

(22) And so, he that vsed to teache, did not commonlie vse to beate.
(1563-1568, Ascham, asch-e1-p2 [PPCEME])

After the emergence of *used to* with inanimate subjects and *used to* with stative verbs, the two forms of *used to* in negative contexts still exist as in (23) and (24).

(23) For his mode was directly after breakfast to pray to the Lord a little (which used not to be his practice), and then to go forth upon Dolly….

[11] For further information of periphrastic *do*, see Warner (1993; chapter 9).

(1869, Blackmore, *Lorna Doone, a romance of Exmoor* (s) [CLMETEV])

(24) 'Things didn't use to be so stupid when Ned was there!' sobbed Gilbert.

(1857, C. M. YONGE in *Monthly Packet* Jan. 34 [taken from the *OED*])

Both *used to* with stative verbs and *used to* with inanimate subjects and stative verbs are exploited in the examples of (23) and (24).

Compared these two forms of negation, Palmer (1974: 162) states that in present day English, *did not use to* is not so standard as *used not to* in negative contexts. Denison (1993: 323) agrees with the statement, and further maintains that because the negative forms of *used to* is ambiguous, *never* is more often used in order to avoid the dilemma of choosing a comfortable form. Moreover, if *never* is exploited, the pronunciation of *used to* is appropriately fit the assimilation and attrition of /ju:stə/ (Hantson, 2005:262).

Apart from the negative forms of *used to* in declarative sentences, *used to* in interrogative contexts is also an approach to judge the status of *used to*, either a semi-modal in (24), or a verb in (25):

(25) Usen't[12] Richard to say that it was etiquette in the profession to treat a patient's relatives··as so many cretins?

(1929, 'H. H. RICHARDSON' *Ultima Thule* III. v. 279. [taken from the *OED*])

(26) Didn't I always use to be alone?

(1893, Gissing, *The odd woman* (s) [CLMETEV])

Nonetheless, although *used to* can be judged as a semi-modal or a main verb by using the forms of *used to* in negative contexts and interrogative contexts, there is one problem. That is, *do* support occurs with *used to*, whose *d* in *used* is not deleted. (27) is an instance for this:

[12] According to the *OED*, the negative form of the abbreviation in *used not to* can be written as *usedn't* to or *usen't to* (Retrieved from http://www.oed.com/view/Entry/220636?rskey=L7RgiK&result=2&isAdvanced=false#eid.)

(27) It did used to knock me over a bit at first, but, lor love you!

(1889, Jerome, *Three men in a boat* [CLMETEV])

Used to in (27) is a past marker, and to some extent can be regarded as a semi-modal, but if it is a semi-modal, there is a question about non-deletion of *d* in *used to* with *do* support. In order to answer this question, (28) is provided:

(28) 'Dad', (said the Glassman...pulling out his pocket-handkerchief) 'I didn't used to be so melch-hearted.'

(1782, E. BLOWER *George Bateman* II. 111 [taken from the *OED*])

The instance of (28) is the quotation attested by the *OED*, which *did* support occurs with *'used to*', which remains its *d*. The stative verb after *used to* reveals that *used to* here is considered a past tense marker or a semi-modal with the substandard form. Hantson (2005: 263) cites the form of *did he used to* in the Collins *Cobuild English Grammar*, claiming that *did he used to* is clarified as the usage of conversation, indicating that *used to* with *do* support is considered as a colloquial usage, and very informal. In addition, since *used to* with *do* support is not a standard form, it is possible to assume that for some native speakers, it is possible to use it with *do* support, especially in conversations, regardless the old-fashion usage of *used not to*. So is the example of (28). Consequently, inanimate subjects or stative verbs, to some extent, can be used to judge whether *used to* is a semi-modal or a lexical verb.

From the above statements, although inanimate subjects and stative verbs are ways to distinguish *used to* as a semi-modal or a full verb, there are some examples in which *did not used to* is exploited without inanimate subjects or stative verbs:

(29) I did not used to speak to him often, but still I used to speak to him.

(1878, *Trial Sir R. C. D. Tichborne* V. 52/2 [taken from the *OED*])

(30) My lady used not to spare Colonel Esmond in talking of him.

(1852, THACKERAY *Henry Esmond* I. iv. 93 [taken from the *OED*])

Used to with inanimate subjects or stative verbs is employed in *did not use to*:

(31) It is reported…that the Leucacians in ancient time did use to precipitate a man from a high cliffe into the sea.

(1902, Bacon, *The dominion of the air* [CLMETEV])

The possible explanation can be that when the usage of *used to* with inanimate subjects and stative verbs started, the original usage of *used to* was still used. Since *used to* seldom occurred in negative contexts, both negative forms of *used to* in negative contexts were used. Some people may use the traditional one, *used not to*, whereas some may use *do* support. If the situation of using *used to* is in a conversation, there is a high tendency that *do* support will be used. According to Lambotte (1998: 158, cited in Hantson 2005: 263), young people tend to use *do* support in negative contexts with *used to*. Although the statement that Lambotte makes is to describe the situation of present day English, the condition can be assumed to be similar. In addition, the original *used to* was used more frequently than the other two, thus making it difficult to distinguish the grammaticalized form of *used to* from the original one. Furthermore, with the ambiguous forms, the differentiation of *used to* as a semi-modal or a main verb becomes more obscure. Hence, in present day English, no matter *used to* is used with inanimate subjects or stative verbs, all negative forms of *used to* in negative contexts can be used, which makes *used to* difficult to be defined as a semi-modal or a lexical verb.

5.4 An intervening word in *used to*

Before the end of this chapter, one more feature of *used to* needs to be discussed: an intervening word between *used* and *to*. There are some instances found in the corpora:

(32) …he vsed accustomably to say with her….

(1555, Roper, *The lyfe of Sir Thomas Moore* [PPCEME])

(33) Probably few aeronauts of the present time will accept the statement. It used commonly to be asserted, and is so often to this day.

(1902, Bacon, *The dominion of the air* [CLMETEV])

The intervening words in (32) and (33) are adverbs. In present day English, seldom do speakers put adverbs between semi-modals. However, if the pattern of *used to* is compared with that of *have to*[13] in the same periods, they have the same situation.

(34) I have only to present my affectionate respects to sweete Mrs. Oxenden and your selfe. (1647, Dering, Private letters [PPCEME])

(35) They involve profound and eternal attachment on my part; and I have always to be at my best. (1896, Rutherford, *Clara Hopgood* [CLMETEV])

Example (35) is interesting, because it is nearly in the present day English period, and according to Krug (2000: 76-81), there is "a leap in grammaticalization" in the subperiods of 1850-1899, compared with the subperiods of 1800-1849[14]. Thus, intervening adverbs may not be the case to judge the requirement of semi-modals.

[13] It is only quick search for intervening words in *have to* in PPCEME and CLMETEV. Similar to *used to*, there are some instances, but they are very few.

[14] In fiction, the frequency of *have to* in the first half of the 19th century is approximately 2.7 words per 10,000 words, and in the second half of the 19th century, the frequency of *have to* is 5 words per 10,000 words. Likewise, the frequency of *have to* in drama rises from approximately 1 word to 6 words per 100,000 words during the 19th century. In the 20th century, the frequency of *have to* increases further.

Chapter 6 Conclusion

In this dissertation, I have used four corpora to investigate the development of *used to* in the hope of finding trends in its usage and uncover the phenomena of grammaticalization, which have occurred with other semi-modals. The investigation contains both quantitative and qualitative analysis.

In quantitative analysis, the trend of *used to* does not increase significantly in the history of English. Low frequency of usage is the major reason. Without any significant rise in the trend, the assumption of grammaticalization of *used to* with inanimate subjects and stative verbs cannot be the evidence. The disappearance of present tense usage of *used to* does not influence its past tense usage; moreover, its disappearance does not increase the frequency of *be used to*, which is thought to be the substitute for *use to*. As for the negation of *used to*, both forms were found in the the Penn-Helsinki Parsed Corpus of Early Modern English and the Corpus of Late Modern English Texts, Extended Version. However, the frequency of it is even less than that of *used to* in affirmative contexts. In the history of English, it is the least used. Finally, personal subjects of *used to* show that in the history of English, *used to* favors third person subjects in the written texts, which is different from the results of speeched-based registers in present day English.

In the qualitative analysis, inanimate subjects and stative verbs, which are not considered quantitatively significant enough to be evidence for grammaticalization, are analyzed as possible evidence for grammaticalization. They underwent the process of desemanticization, and the meaning in *used to* with inanimate subjects and stative verbs cannot be clearly defined as a habitual marker. Another feature of integrity, one of the parameters in Lehmann's grammaticalization, is phonological attrition in the pronunciation of *used to*. Nevertheless, perhaps the degree of grammaticalization of

used to is very limited, and *used to* with inanimate subject and stative verbs is not frequently used in present day English. It is, therefore, thought to be the least grammaticalized semi-modal as Bybee et al. (1994) claims. Apart from the grammaticalization of *used to*, negative forms of *used to* are presented, showing that the inconsistent forms of *used to* in negative contexts make *used to* even harder to distinguish either as a semi-modal or a lexical verb. Finally, an adverbial intervening between *used* and *to* does not interfere with *used to* in the category of semi-modals, since *have to* also had the same instances when it grammaticalized.

In summary, this dissertation has shown *used to* in historical aspect through corpora. Different varieties of English or the analysis of *used to* in respects of sociolinguistics can be further researched so as to provide different values.

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Appendix I

Text genre	Number of words	Percentage
Bible	133,585	7.7%
Biography, autobiography	36,436	2.1%
Biography, other	50,490	2.9%
Diary, private	127,689	7.3%
Drama, comedy	110,078	6.3%
Educational treatise	110,349	6.3%
Fiction	112,438	6.5%
Handbook, other	105,435	6.1%
History	103,769	6.0%
Law	115,621	6.7%
Letters, non-private	60,771	3.5%
Letters, private	116,423	6.7%
Philosophy	83,208	4.8%
Proceedings, trials	137,249	7.9%
Science, medicine	40,789	2.3%
Science, other	77,446	4.5%
Sermon	93,932	5.4%
Travelogue	122,145	7.0%
Total	1,737,853	100%

Table 3. Word counts in text genre (Retrieved from

http://www.ling.upenn.edu/hist-corpora/PPCEME-RELEASE-2/index.html)